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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,450	04/12/2006	Akihide Shiratsuki	288249US2PCT	2090
22850	7590	11/18/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
CHAN, KAWING				
ART UNIT		PAPER NUMBER		
2837				
NOTIFICATION DATE		DELIVERY MODE		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary****Application No.**

10/575,450

**Applicant(s)**

SHIRATSUKI ET AL.

**Examiner**

Kawing Chan

**Art Unit**

2837

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-893)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 04/12/06

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 04/12/06 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by examiner.

### ***Claim Objections***

3. Claims 1-6 are objected to because of the following informalities:  
"presence/absence". Appropriate correction is required. For examination purpose, the phrase "presence/absence" is interpreted as "presence or absence".

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 7 and 8 recites the limitation "the light projecting portion" in line 2. There is insufficient antecedent basis for this limitation in the claims.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1 and 6 are rejected under 35 U.S.C. 102(a) as being anticipated by Birrer et al. (US 2004/0216320 A1).

9. In Re claims 1 and 6, with reference to Figures 1-4 and 8, Birrer discloses an elevator rail joint detecting device (17) characterized by comprising:

- A joint detecting portion (12) opposed to a guide rail (7), which has a plurality of unit rails (10, 20, 21) vertically connected to each other, and provided to a car (2) guided by the guide rail (7), for detecting presence of a joint (22, 23; i.e. north/south poles) between each of the unit rails (21) (Paragraphs [0029-0032]); and
- A joint determining portion (11) for determining presence/absence of the joint (presence/absence of the north pole (22) or south pole (23)) based on information from the joint detecting portion (12) (Paragraphs [0030, 0038]);
- A car position detecting position (33) for detecting a position of the car (i.e. position code)(Paragraph [0038]);

- A car position correcting portion (17, 40) for correcting information (i.e. obtaining the overall high resolution position (53) of the car) on the position of the car from the car position detecting portion (33) based on information (47; Paragraphs [0045, 0046, 0053, 0054]) from the joint determining portion (12) (Figures 2, 4 and 8);
- A control device (18) for controlling operation of an elevator based on information on the position of the car (2) from the car position correcting portion (17, 40) (Paragraphs [0031, 0053, 0059, 0062]);

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrer et al. (US 2004/0216320 A1) in view of Watt (US 4,750,592) and Silberhorn et al. (US 6,612,403 B2).

12. In Re claims 2 and 3, Birrer teaches the joint detecting portion has:

- a light irradiating portion (illuminating device) for irradiating a light beam to a surface of the guide rail (i.e. code marks (21));

- a light receiving portion (reflected light barriers) for receiving a part of a reflected light beam of each of the light beam irradiated to the joint (i.e. code marks (21)) (Paragraph [0063]).

Birrer fails to explicitly the position of the light irradiating portion and the light receiving portion, and an imaging optical system.

However, with reference to Figures 1-5, Watt teaches a joint detecting portion (30, 32, 34, 36, 38, 40, 42) comprises:

- a plurality of light irradiating portion (24) and a plurality of light receiving portion (26).
- Each of the light receiving portion (24) being placed to avoid interference with an optical path of a reflected light beam of each of the light beams as specularly reflected by vane (14) on a tape (10) aligned parallel with the guide rail (72) and opposed to the elevator car (18) (Col 3 line 54 to Col 4 line 65);

Nevertheless, with reference to Figure 1, Silberhorn teaches an imaging optical system (i.e. a lens system) for imaging each of the reflected light beams to the light receiving portion (3) (Col 2 lines 28-57).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Birrer with the teachings of Watt and Silberhorn, since it is known in the art to utilize a plurality of light irradiating and light receiving devices to monitor different portions of an elevator so as to be able to correctly detecting the position of the elevator, and it is also known in the art

to utilize a lens system for imaging the reflected light beams so as to be able to focus the image upon the camera (3).

13. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrer et al. (US 2004/0216320 A1) in view of Watt (US 4,750,592) and Silberhorn et al. (US 6,612,403 B2) as applied to claims 2 and 3 above, and further in view of Caputo et al. (US 4,019,606).

14. In Re claims 4 and 7, Birrer, Watt and Silberhorn have been discussed above, but they fail to disclose the light projecting portion irradiates the light beam in a direction perpendicular to the surface.

However, with reference to Figures 1, 3 and 6, Caputo teaches the light projecting portion (92) irradiates the light beam in a direction perpendicular to the surface (48) (Col 6 lines 7-27; Col 8 lines 7-19).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Watt and Silberhorn with the teachings of Caputo, since it is known in the art to strike a light beam on a surface in a perpendicular direction so as to be able to increase the amount of reflecting light beam.

15. Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrer et al. (US 2004/0216320 A1) in view of Watt (US 4,750,592) and Silberhorn et al. (US 6,612,403 B2) as applied to claims 2 and 3 above, and further in view of Miyai et al. (US 5,825,793).

16. In Re claims 5 and 8, Birrer, Watt and Silberhorn have been discussed above, but they fail to disclose the light beam from the light projecting portion is irradiated in a polarization direction and the incident angle of the light beam on the surface is a Brewster angle.

However, with reference to Figure 8, Miyai teaches a light beam (32) from the light projecting portion (11) is irradiated in a polarization direction and the incident angle of the light beam on the surface (23) is a Brewster angle (Col 4 lines 19-36).

Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have modified the teachings of Birrer, Watt and Silberhorn with the teachings of Miyai, since it is known in the art to strike a light beam on a surface in a polarization direction and Brewster angle so as to be able to reduce the amount of reflection from the surface.

### ***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Zaharia, Caputo et al. ('756), Koura, Gerstenkom, Wright, Kammura, Steger et al., Coste et al., Morishita, Okamoto et al. and Bourdelais et al. are further cited to show related teachings in the art.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kawing Chan whose telephone number is (571)270-3909. The examiner can normally be reached on Mon-Fri 9am-5pm.



19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 571-272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kawing Chan  
Examiner  
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